

ASA, CSSA, SSSA MEMBERS AND CERTIFIED INDIVIDUALS ARE FEEDING THE WORLD – BUT THEY NEED BETTER INTERNET TO KEEP UP.

Beth Jacques

INTRODUCTION

In a rapidly changing world, broadband access has become an essential utility for people around the globe. In the United States access to broadband internet is not equal for all citizens. Americans living in rural areas often do not have any access to broadband internet, cutting them off from economic growth, educational opportunities, public services, and more.

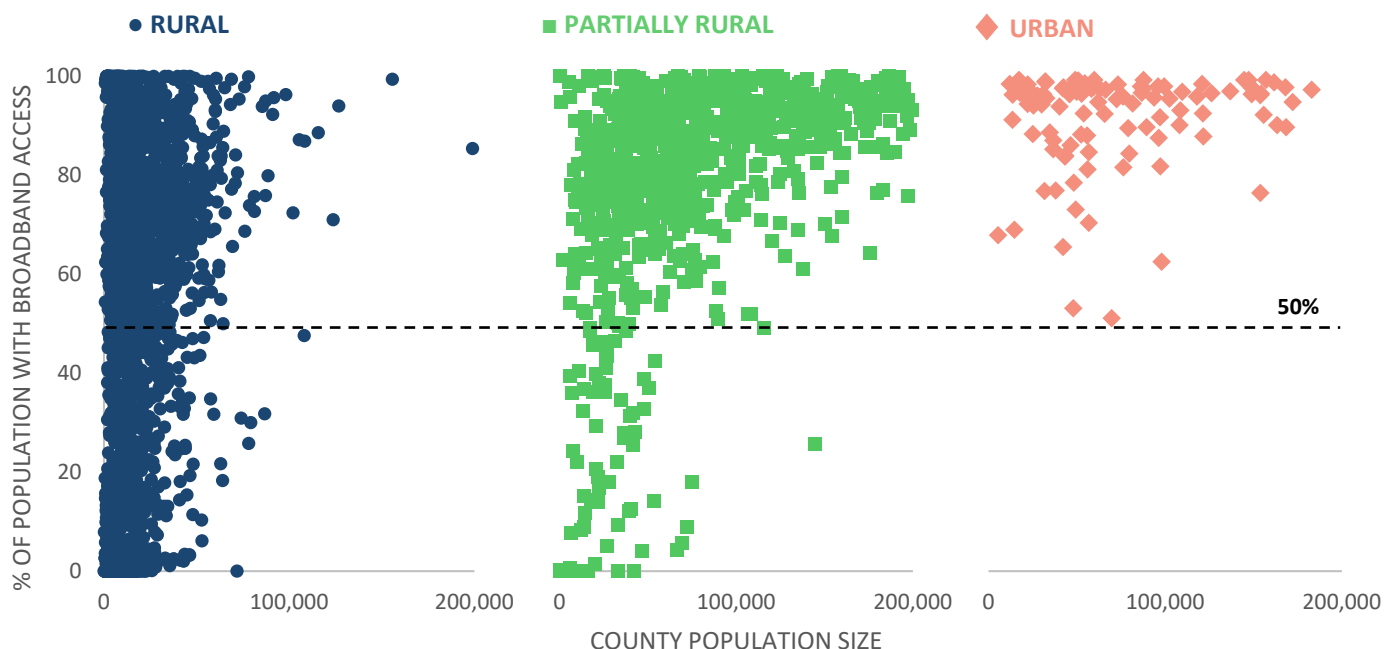
The Alliance of Crop, Soil, and Environmental Science Societies (ACSESS) is comprised of 18,000 members, certified crop advisers, agronomists, and soil scientists in the United States. **90%** of those members live in rural or partially rural regions of the country and thus are more likely to have limited access to broadband.

Our members rely on technology in the field to advance agriculture and feed the world. In order to better serve our members, ACSESS needs to be at the forefront of the movement to expand broadband access to rural America.

UNEQUAL BROADBAND ACCESS ACROSS THE US

According to data from the Federal Communications Commission's (FCC) 2017 Mapping Broadband in America initiative, 21.3 million Americans do not have access to purchase broadband internet.¹ An independent study by BroadbandNow Research estimates that number is twice as large at 42 million Americans, meaning the situation is much more dire than we realized.²

FIG 1: 92% OF COUNTIES WHERE FEWER THAN HALF OF THE POPULATION HAS BROADBAND ACCESS ARE RURAL



Note: Counties with populations over 200,000 were excluded from this chart for clarity.

Without internet, Americans have less access to public services, education, civic engagement, economic growth, telemedicine and more. Unfortunately, citizens in rural counties are less likely to have internet access – they account for 92% of US counties where fewer than half of residents have broadband access (Figure 1).

ACSESS represents over 18,000 members, certified crop advisers, agronomists, and soil scientists in the United States. Our members are more likely to be affected by lack of broadband access because 90% live in a rural or partially rural county, compared to only 72% of the general population (Figure 2).

NOT YOUR GRANDPARENTS' FARM ANYMORE

Technology in agriculture has made some aspects of farming unrecognizable from the past. Many farms use state-of-the-art technology for planting, fertilizing, and monitoring field conditions. Today's farmers regularly use artificial intelligence, drones, aerial images, robots, and GPS technology. This technology results in

- Increased crop productivity
- Increased farmer safety
- Decreased water, fertilizer, and pesticide use
- Decreased impact on the environment
- Decreased chemical runoff³

Certified crop advisers have smartphones and tablets in the field to access up-to-date information while advising their clients.

Online education is essential for members to maintain their certification and stay current on trends in the industry. Virtual conferences have become the dominant mode of communication in 2020 and are likely to continue in the future. But a March 2020

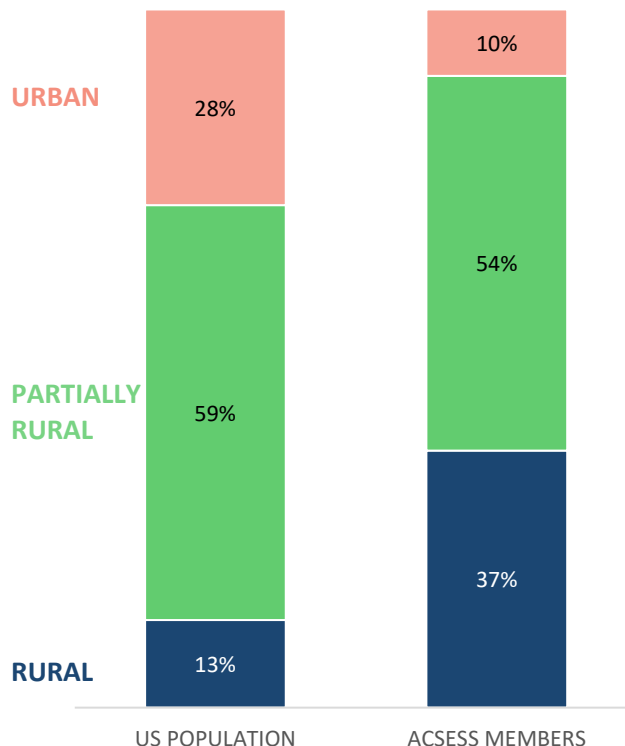
30%

CCAS UNABLE TO USE ONLINE
EDUCATION DUE TO RURAL
INTERNET ACCESS AND SPEED

internal survey of CCAs found that 30% were unable to use online education due to rural internet access and speed issues.

As the global human population

FIG 2: 90% OF ACSESS MEMBERS LIVE IN RURAL OR PARTIALLY RURAL U.S. COUNTIES



approaches 8 billion, the pressure on the agricultural industry increases. In the next 30 years the world's expected food demand will increase by 60%.⁴ Access to broadband internet and technology will be critical in ensuring farmers are able to meet that demand.

Internet service providers (ISPs) have little incentive to expand service to rural areas because return on investment is much lower than urban regions. However, the importance of technology in the coming decades to provide equal opportunity to all Americans requires that this digital divide between rural and urban is eradicated.

CURRENT POLICY OPTIONS

In 1936 Congress passed the Rural Electrification Act, providing funding for electricity installation across rural America.⁵ Internet access today is just as important as electricity was then; we need to take action to ensure rural American can access broadband internet.

There have been some advancements in policy; in 2009, Congress directed the FCC to “develop a National Broadband Plan to ensure every American has access to broadband capability.”⁶ The FCC is currently in the process of allocating \$2 billion in subsidies for expanding rural broadband access over the next 10 years.⁷

In March 2020, the Senate approved the Broadband Deployment and Technological Availability (DATA) Act, which requires the FCC to collect more detailed data from broadband providers and update existing broadband maps.⁸ These policies will help ensure that federal agencies have current and accurate data on how many households are lacking access to broadband and where these households are located so funding can be directed to the people most in need.

RECOMMENDATIONS

The Alliance of Crop, Soil, and Environmental Science Societies needs to support these and other proposed federal, state, and local policies in order to ensure that our members are able to continue doing the work they need to do to feed the world. Rural broadband access is critical to the work our members and certificants do in the fields, especially as agriculture utilizes more advanced technology.

Our organization should be at the forefront of advocating for legislation and funding that will bring broadband access to rural families. Through our Science Policy office and network of over 18,000 members and certificants we can bring awareness of the problem to members and Congress.

AUTHOR



Beth Jacques is the Membership and Data Analytics Manager at the Alliance of Crop, Soil, and Environmental Science Societies (ACSESS).

REFERENCES

1. “Mapping Broadband Health in America.” *Federal Communications Commission*, <https://www.fcc.gov/health/maps>
2. Busby, John, and Julia Tanberk. “FCC Reports Broadband Unavailable to 21.3 Million Americans, BroadbandNow Study Indicates 42 Million Do Not Have Access.” *BroadbandNow*, Centerfield BBN LLC, 3 February 2020, <https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent>
3. “Agriculture Technology.” *United States Department of Agriculture*, National Institute of Food and Agriculture, <https://nifa.usda.gov/topic/agriculture-technology>
4. Maxwell, Mary Jane. “U.S. farmers feed the world.” *SHAREAMERICA*, Bureau of Global Public Affairs/US Department of State, 6 March 2019, <https://share.america.gov/u-s-farmers-feed-world/>
5. “Rural Electrification Act.” *National Park Service*, U.S. Department of the Interior, 14 April 2020, <https://www.nps.gov/home/learn/historyculture/ruralelect.htm>
6. “America’s Plan Executive Summary.” *Federal Communications Commission*, <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan-executive-summary.pdf>
7. Allen, Mike. “Axios Deep Dives.” *Axios*, Axios Media, 1 December 2019, <https://www.axios.com/newsletters/axios-deep-dives-301b96de-cd85-474a-a587-aa954aaaf7d1.html>
8. Kelly, Erin. “Congress Passes Bill to Improve Broadband Mapping Data.” *National Rural Electric Cooperative Association*, Touchstone Energy, 11 March 2020, <https://www.electric.coop/congress-passes-bill-to-improve-broadband-mapping-data/>